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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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07/702,615	05/17/91	BAINES	R F-8913(859-1)
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MM42/0618
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EXAMINER

TAMAI, K

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 06/18/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
07/702,615

Applicant(s)
Baines

Examiner
Karl Tamai

Group Art Unit
2834



☒ Responsive to communication(s) filed on Apr 12, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 48, 50-58, 60-67, 72, 74-79, and 81-92 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 48, 50-58, 60-67, 72, 74-79, and 81-92 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on May 19, 1991 is/are objected to by the Examiner.

☒ The proposed drawing correction, filed on Apr 12, 1999 is ☐ approved ☒ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 45

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Attorney Dkt: JE-4(1534-13)

DETAILED ACTION

Prior Allowed Claims

1. The indicated allowability of claims 48, 50, 72, and 74 are withdrawn in view of the newly discovered references to Japanese Patent 59-230,450('450) and 62293,953('953). Rejections based on the newly cited references follow.

Continued Prosecution Application

2. The request filed on April 12, 1999 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/702,615 is acceptable and a CPA has been established. An action on the CPA follows.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the aperture and slot in the brush support arms must be shown or the feature canceled from the claim. No new matter should be entered.
4. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on March 15, 1999 have been disapproved because they introduce new matter into the drawings. 37 CFR 1.121(a)(6) states that no amendment may introduce new matter into the disclosure of an application. The original disclosure does not support the showing of an aperture in the brush arm.

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Specification

5. The new title "Brush Assembly with Axially Spaced Brush Arms Which Have Different Resonant Frequencies" has been entered into the file and the objection to the title withdrawn.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 50, 74, and 81-92 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The specification does not provide a full, clear, concise, and exact written description of the slot in the brush arm, such as position, shape, and size of the slot. The specification does not disclose the best mode of operation for achieving the slot in the brush arm.

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
9. The prior art rejections of Claims 51-58, 60-67, and 75-79 under 35 USC 103(a) over Kobayashi and Pfatischer are withdrawn.

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10. Claims 48, 50-58, 60-67, 72, 74-79, and 81-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mabuchi, '450, and '672. Mabuchi teaches a motor having two sets of diametrically opposed brush assemblies, where each brush assemblies contains two brushes 1 contacting the same segment 4 of cylindrical commutator. Each brush having a brush body 1 and a support arm 2. Mabuchi does not teach each support arm being a different resonant frequency due to different materials in the brush arm or a slot in one of the brush arms or brush bodies mounted by interference fit into apertures on the support arm. '450 teaches that brush arms with different weights due to different dimension of the adjacent brush arms varies the intrinsic vibrating frequency of each arm to reduce noise and unequal rotation in the motor. It is inherent that the different brush arms cause a reliable brush contact with the commutator. '450 does not teach different materials in the brush arms. '953 teaches the equivalency of different size brushes, brushes of different materials, and a slit in one of the brushes to change the resonant frequency between two brush arms. '953 teaches brushes 6 mounted by interference fit into apertures 7 on the support arms. It would have been obvious to a person skilled in the art at the time of the invention to construct the motor of Mabuchi with the brush arms having different resonant frequency due to the use different materials in the brush arms or a slot in one of the arms because '450 teaches that different resonant frequencies in adjacent brushes reduces noise and unequal rotation in a motor and because '953 teaches the equivalence of changing the resonance frequency in two brush arms by different size brush arms, different materials in the brush arms, and a slot in one of the brush arms, where selection of know equivalents is within the ordinary skill in the art..

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11. The prior art rejection of Claims 51-58, 60-67, and 75-79 under 35 USC 103(a) over Kobayashi and Pfatischer are withdrawn.


Response to Arguments

12. Applicant's arguments with respect to claims 48, 50-58, 60-67, 72, 74-79, and 81-92 have been considered but are moot in view of the new grounds of rejection. The examiner apologizes for the untimely objection to the drawings regarding the lack of a slot in the support. The examiner misinterpreted a random box on the brush arm for a slot, when in actuality the drawings do not show a slot in the brush arm.

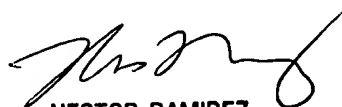
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (703) 305-7066. The examiner can be normally contacted on Monday through Friday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Nestor Ramirez, can be reached at (703)308-1371. The facsimile number for the Group is (703)305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1782.

KIT 

June 16, 1999


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800